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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/695,729

10/28/2003

Alfred Lamprecht

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05/26/2009

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EXAMINER

HAUGLAND, SCOTT J

ART UNIT

PAPER NUMBER

3654

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DELIVERY MODE

05/26/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/695,729	Applicant(s) LAMPPRECHT ET AL.	
	Examiner Scott Haugland	Art Unit 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18,21,24-27,32,34-36,40 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18,21,24-27,32,34-36,40 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Reissue Applications

The explanation of the support in the disclosure of the patent for the changes to the claims required by 37 CFR 1.173(c) filed 11/21/08 is incomplete. No explanation of the support in the disclosure of the patent for the changes to claim 18 is present.

Claim Objections

Claims 21, 24-27, 32, 34-36, 40, and 41 are objected to because of the following informalities: It appears that "hallow" in claim 21, line 4 and claim 32, line 3 should be --hollow--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21, 24-27, 35, 36, and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 recites the limitation "the pivot axis" on lines 14-15. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 depends from claim 23 which has been canceled. Claim 24 is assumed to depend from claim 21.

Claim 35 depends from claim 33 which has been canceled. Claim 35 is assumed to depend from claim 32.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Fecker (U.S. Pat. No. 4,793,565).

Fecker discloses a yarn feeder for positive feeding of yarns comprising: a yarn feed wheel 4, a drive mechanism 5 for rotatably driving the yarn feed wheel. The yarn feed wheel 4 comprises a single piece that includes a laterally extending yarn inlet region 13, a laterally extending yarn storage region (formed by 16), and a laterally extending yarn payout region 14. The yarn inlet region 13 comprises a closed surface that has a circular cross section at each lateral point that is concentric to the pivot axis with a diameter which decreases along the pivot axis in a lateral direction toward the storage region (note that the 13 is tapered). The yarn payout region has a circular cross section at each lateral point that is concentric to the pivot axis with a diameter which increases along the pivot axis in a lateral direction away from the storage region. The storage region has spaced contact regions (on 16). The cross section of the storage

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region deviates from a circle that is concentric with the pivot axis. The yarn inlet region, yarn storage region, and yarn payout region merge with one another without shoulders or steps which can impede lateral movement of yarn from the inlet region to the storage region and from the storage region to the outlet region.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fecker (U.S. Pat. No. 4,793,565) in view of Lin (U.S. Pat. No. 5,802,881).

Fecker is described above.

Fecker does not disclose planar surface regions formed between adjacent bearing surfaces of the storage region of the feed wheel.

Lin teaches forming a yarn feed wheel with planar surface regions (on radially extending sides of support elements 4) between bearing surfaces 432 of a storage region of the yarn feed wheel.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Fecker with planar surface regions between bearing

surfaces of the storage region of the feed wheel as taught by Lin to facilitate manufacture of an accurate storage region surface.

Claims 13, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fecker (U.S. Pat. No. 4,793,565) in view of Chen (U.S. Pat. No. 5,839,685).

Fecker is described above.

Fecker does not disclose that the yarn feed wheel has a base body and a coating comprising the claimed materials.

Chen teaches forming a yarn feed wheel 30 as a metal base body with a coating comprising a ceramic (oxide layer) 301 and PTFE 305 to prevent damage (e.g., scratching) of the surface of the feed wheel and reduce friction.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Fecker with a base body comprising a ceramic or a metal body coated with a ceramic or coated with a coating containing oxygen and a further component different from the metal body as taught by Chen to reduce wear and friction on the feed wheel.

Claims 18, 32, 34, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fecker (U.S. Pat. No. 4,793,565) in view of Buck et al (U.S. Pat. No. 4,574,597).

Fecker discloses a yarn feeder for positive feeding of yarns comprising: a yarn feed wheel 4, a drive mechanism 5 for rotatably driving the yarn feed wheel. The yarn feed wheel 4 comprises a single piece that includes a laterally extending yarn inlet region 13, a laterally extending yarn storage region (formed by 16), and a laterally extending yarn payout region 14. The yarn inlet region 13 comprises a closed surface that has a circular cross section at each lateral point that is concentric to the pivot axis with a diameter which decreases along the pivot axis in a lateral direction toward the storage region (note that 13 is tapered). The yarn payout region has a circular cross section at each lateral point that is concentric to the pivot axis with a diameter which increases along the pivot axis in a lateral direction away from the storage region. The storage region has spaced contact regions (on 16). The cross section of the storage region deviates from a circle that is concentric with the pivot axis. The yarn inlet region, yarn storage region, and yarn payout region merge with one another without shoulders or steps which can impede lateral movement of yarn from the inlet region to the storage region and from the storage region to the outlet region. The feed wheel includes an end wall formed by hub 15 that connects flanges 13, 14. The end wall has a central opening for receiving a drive shaft 2.

Fecker does not disclose that the yarn feed wheel is formed by deep-drawing a metal blank. Fecker does not explicitly state that coating is performed after shaping.

Buck et al teaches forming a yarn feed wheel 5 by deep-drawing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the metal yarn feed wheel of Fecker by deep-drawing as taught by Buck et al to increase manufacturing efficiency.

With regard to claim 34, it would have been obvious to coat the metal body after shaping to prevent destruction of the coating during shaping.

With regard to claim 41, it would have been a matter of obvious engineering choice to one having ordinary skill at the time the invention was made to form the inlet, storage, and payout regions of the feed wheel with uniform thickness since it would have been within the level of skill of an ordinary artisan to select the wall thickness to provide sufficient rigidity and strength while minimizing material usage and cost.

Claims 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fecker (U.S. Pat. No. 4,793,565) in view of Buck et al (U.S. Pat. No. 4,574,597) as applied to claim 32 above, and further in view of Chen (U.S. Pat. No. 5,839,685).

Fecker does not disclose that the yarn feed wheel is made of aluminum and does not disclose a coating having the claimed composition.

Chen teaches forming a yarn feed wheel of aluminum and teaches providing a yarn feed wheel with a coating comprising a ceramic (oxide layer) 301.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the yarn feed wheel of Fecker of aluminum to reduce weight and to provide the yarn feed wheel with a coating of ceramic as taught by Chen to reduce wear of the feed wheel.

Allowable Subject Matter

Claims 21, 24-27, and 40 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph and the objections set forth in this Office action.

Response to Arguments

Applicants' arguments filed 11/21/08 have been fully considered but they are not persuasive.

Applicants argue that the claim 1 distinguishes over Fecker for the reasons set forth in the prosecution of the patent to be reissued in which it was argued that the inlet region was formed by ribs 17. However, 13 of Fecker reads on inlet region of claim 1. Ribs 17 correspond to the claimed storage region which does not have a circular cross section.

Applicants argue that Buck et al does not disclose forming a yarn feed wheel by deep drawing. However, note col. 7, lines 37-40 of Buck et al. Buck et al also discloses forming the yarn feed wheel as one piece (col. 7, line 1). This explicit disclosure of making a yarn feed wheel by deep drawing suggests forming a feed wheel such as that of Fecker et al having smooth transitions between inlet, storage, and payout regions by deep drawing.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571)272-6945. The examiner can normally be reached on Mon. - Fri., 10:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Q. Nguyen can be reached on (571) 272-6952. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Q. Nguyen/
Supervisory Patent Examiner, Art Unit 3654

/SJH/
5/20/09